

# FINTECH SKILLS FRAMEWORK

A Blueprint for Further Education  
in Birmingham and the West Midlands

April 2023



# Birmingham Metropolitan College (BMet)



**Suzie Branch-Haddow**  
Vice Principal, External Development  
Birmingham Metropolitan College - BMet

**I am delighted to welcome this report on FinTech skills provision in the region on behalf of Colleges West Midlands. It sets out a skills development framework that is vital for one of our region's most dynamic and exciting sectors. It's not overstating the point to say it's a game changer.**

Ten years ago, BMet established the Greater Birmingham Professional Services Academy (GBPSA). It continues to specialise in developing the skills and knowledge needed in the business professional and services (BPFS) sector, working in partnership with employers. The GBPSA directly answered one of the recommendations in the Birmingham Future Commission report, Choose work, Choose life, Choose Birmingham (Warwick Business School, 2013).

BMet is at forefront again, ready to respond to what industry is telling us.

This latest report benefits from deep market research and rich stakeholder insights. It also draws on The Kalifa Review of UK FinTech and the Financial Services Skills Commission's Future Skills Framework.

Birmingham and the West Midlands boasts a young and diverse population. Qualification levels are on the increase, as is graduate retention. But there is still work to do to prepare our young people for the jobs of tomorrow while women and ethnic minorities in UK FinTech are underrepresented.

We have a responsibility to advance our diverse pool of talent. At the same time, we have a brilliant opportunity to respond to industry needs. We can re-position the region's further education sector in the minds of employers as part of an integrated skills solution with higher education partners.

This report sets out a Regional Skills Provision Framework. It provides for different entry points, including school leavers and adult learners. We want to promote aspiration and work readiness among our young people. It has a focus on upskilling and reskilling rather than relying on recruitment in a highly competitive market for talent.

We know that industry is open to high quality short courses and 'in work' training solutions. The first product from this strategy will be ready to go this May. We believe it is the first course of its kind in the country. The short course will take around three months with self-study, online and in-college learning options. It will provide an introduction to FinTech, covering behavioural and technology strands.

The new course will feature assessment by an expert panel and will deliver on the demand for continuous innovation. Over the next two years, we anticipate launching four new courses which will serve around 50-60 new students.

We will expand our GBPSA Advisory Board to cover FinTech, locking in the skills needs of this fast-growing industry to the requirements of the wider BPFS sector in the region. I want to thank the Department for Education's Skills Development Fund for investing in this research.

Partnership is essential in this space, so my thanks to colleagues across Colleges West Midlands and our friends at SuperTech and the Greater Birmingham Local Enterprise Partnership. Finally, thanks to Whitecap Consulting for producing excellent insight and an actionable final report.

# SuperTech



**Hilary Smyth-Allen**  
**Executive Lead**  
**SuperTech**

**SuperTech is the UK's only tech supercluster, driving collaboration and innovation in professional services technology across the West Midlands.**

Our forthcoming Impact Report will highlight the exciting growth that this cluster is displaying. Birmingham and the West Midlands already enjoys a flourishing financial services sector and we are home to one of the UK's three recognised FinTech hubs.

FinTech is a £½ billion industry in the region where the workforce has grown by an astonishing 51% in just the last two years. Productivity levels in FinTech are almost double the regional average.

The growth of the wider business, professional and financial services (BPFS) sector has not happened by accident. Years of sector advocacy, collaboration and the nurturing of an ecosystem lay behind securing the likes of HSBC's UK headquarters and the Goldman Sachs tech engineering hub.

Fostering innovation and filling skills gaps have been persistent calls in numerous reports over the years. Across the UK and in the region, FinTech faces significant skills shortages. There is major competition for high value skills among high growth sectors.

But this report gives a clear understanding of the required skillsets, including the technical and behavioural competencies which industry needs. There is a new emphasis on upskilling and reskilling, rather than turning to recruitment.

Fast growing, nimble FinTech employers are open to new skills development solutions.

Whilst this report focuses on FinTech, there is a degree of a blueprint which other ProfTech clusters might follow. So, there is a significant opportunity for the further education sector in our region. I am delighted that BMet is grabbing it.

All of this would not have been possible without investment from the Department for Education's Skills Development Fund. I want to thank Whitecap Consulting for producing a report which is going to have a very quick impact on maximising our opportunity to capture further growth.

Finally, thank you to Colleges West Midlands for commissioning this work and to BMet for picking up and running with it in characteristic fashion.

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## Whitecap Consulting & Project Team

Established in 2012, Whitecap Consulting is a regional strategy consultancy headquartered in Leeds, with offices in Manchester, Milton Keynes, Birmingham, Bristol and Newcastle.

Whitecap typically works with boards, executives and investors of predominantly mid-sized organisations with a turnover of c£10m-£300m, helping clients analyse, develop and implement growth strategies.

The firm works with clients across a range of market sectors, with strong experience in the financial services and technology. Over recent years, Whitecap has worked with various ecosystems, accelerators and universities across the UK.

### Project Team



**Richard Coates**  
Managing Director



**Julian Wells**  
Director



**Chloe Thompson**  
Consultant

Additional support including stakeholder interviews and workshop:

**Stefan Haase**, Director, **David Mellor**, Associate Director, **Lal Tawney**, Director at Whitecap Consulting.

# Introduction

**Whitecap was appointed by BMet College and SuperTech to assess the skills requirements across the West Midlands FinTech sector to determine the need and/or opportunity to provide targeted skills provision to support the future growth and competitiveness of the region's FinTech sector.**

The 2020 West Midlands FinTech Ecosystem Report<sup>1</sup>, commissioned by the Greater Birmingham & Solihull Local Enterprise Partnership (GBSLEP) and published by Whitecap Consulting, found there to be a significant opportunity for the region with regards to FinTech with the report stating, "this research has identified untapped potential and a strong and growing interest in FinTech in the region." The report also found the FinTech sector to contribute c.£410m to the region's economy, employing c.7,300 people.

Looking to 2023, FinTech has experienced considerable growth and is considered to be a key industrial sector for the region, contributing large amounts to the economy and providing high-value, high-earning jobs. Through this research, BMet and SuperTech are looking to further understand the skills needs and requirements of this sector in order to determine the scope for providing targeted Further Education (FE) skills provision that meets the current and future needs of the region's FinTech sector.

The intention of this report is to highlight both the national and regional opportunities that lie within FinTech including the ability to create more high-income employment across the UK and West Midlands, increasing the standard of living and improving the lives of many.

**More specifically, this report covers the following:**

**FinTech and Financial Services market insights: UK & West Midlands.**

**Skills needs and requirements across West Midlands FinTech sector including four key skills requirements.**

**Recommended Skills Provision Framework that can be used to guide the design and development of future FE skills provision.**

**The supply of FE skills provision including course design and prioritisation.**

**Industry engagement including the evolution and development of The Greater Birmingham Professional Services Academy (GBPSA) Advisory Board.**

<sup>1</sup> Whitecap Consulting, 2020. West Midlands FinTech Ecosystem Report 2020.



*“Enhancing the size and capability of the FinTech workforce is critical to driving economic growth in the UK’s FinTech sector. The Kalifa Review highlighted the key role our regional hubs will play in maintaining and developing the UK’s global leadership role in FinTech, so I am hugely encouraged to see the investment being made into growing the capability in Birmingham and the West Midlands.*

*At CFIT, we are aiming to create student placement opportunities, to focus on closing the gap between academia and industry by making more courses relevant to the sector’s needs and to attract the next generation of talent. This announcement is a great example of the types of initiative we want to learn from and support as we build momentum into our work.”*

**Charlotte Crosswell OBE, Chair, Centre for Finance, Innovation and Technology (CFIT)**

# Executive Summary

This report clearly demonstrates the regional performance and growth opportunity surrounding the West Midlands FinTech sector and the opportunity for the Further Education sector to contribute significantly to the regional FinTech skills provision and sector growth.

The UK FinTech sector is globally competitive, contributing approximately £11bn and 76,000 high-value jobs to the economy. The West Midlands FinTech sector has seen major growth over the past 3 years and is now a key industrial sector for the region providing high-income jobs to c.7,300 people. These jobs produce a GVA per Worker of almost double that of the average GVA per Worker across the region, (£43k and £23k respectively), clearly demonstrating the value and economic contribution of FinTech job creation across the region.

However, there is a significant skills shortage, both regionally and across the FinTech sector and a specific gap in the market regarding the supply of skills provision to the FinTech sector.

From the regional market insight and stakeholder interviews, there appears to be four key skills needs and requirements across the FinTech sector that current skills provision is not meeting.

Not only does FE sit on a diverse student base which has the potential to support and improve diversity of skills and talent across the wider FinTech sector, but all areas discussed in this report, including the key skills needs and requirements, are in scope for FE and should not be considered 'out of reach'. Although, it will require commitment, innovation and investment to bring into fruition.

## UK FinTech 2023



**£11bn**  
FinTech GVA



**1,600**  
FinTech firms

**10%**

Global market share



**76,000**  
FinTech workforce

## West Midlands FinTech 2023



**£470m**  
FinTech GVA



**74**  
FinTech firms

**15%**

GVA growth  
2020 - 2030

**65**

FinTech  
startups/scaleups

**£43k**

FinTech GVA  
per worker (average  
£23k per worker)



**11,000**  
FinTech workforce

# West Midlands FinTech Ecosystem 2020



# MARKET INSIGHTS



# UK FinTech Sector

**The Financial Technology (FinTech) industry offers services that integrate finance with technology in order to provide new or improved services to businesses and consumers. According to The Kalifa Review of UK FinTech (2021)<sup>1</sup>, the UK has a globally competitive FinTech sector contributing c.£11bn and over 76,000 high-value, high-earning jobs to the economy.**

The sector's direct GVA contribution to the economy is estimated to be £13.7bn by 2030, with job creation contributing to 70% of this. In the review, Ron Kalifa OBE states, "Fintech is not a niche within Financial Services. Nor is it a sub-sector. It is a permanent, technological revolution, that is changing the way we do finance."

The review also highlights that FinTech provides an opportunity for the UK to retain its position as global leader in Financial Services, both improving access to FS and ensuring that the sector continues to deliver for individuals and businesses across the country.

Looking at the landscape, UK FinTech is comprised of over 1,600 businesses including established firms and startups and scaleups. Representing 10% of global market share, the UK is considered to be a hotbed of activity for FinTech. From a user behaviour perspective, UK citizens are becoming increasingly digitally active. In the 2020 EY UK FinTech Report<sup>2</sup>, it was concluded that the UK has one of the highest FinTech adoption rates with 71% of the population using the services of at least one FinTech company, versus a global average of 64%.

Key segments of the FinTech sector include Payments and Digital Banking (25%), Investment Platforms and Management (20%), Credit and Lending (17%), RegTech (7%) and Distributed Ledger Technology (7%)<sup>3</sup>.

Policy and regulation across the UK have also been evolving to create a supportive and enabling environment for FinTechs, resulting in the acceleration of digital transformation across the Financial Services sector. Examples of this include:

- Financial Conduct Authority's (FCA) pro-competition mandate which has helped support new FinTech firms and ensure a more nurturing regulatory environment.
- FCA launched the world's first regulatory "sandbox", which was subsequently replicated abroad by regulators looking to follow the UK's lead in innovation.
- Bank of England and the FCA's 'New Bank Start-up Unit' which provides additional support and advice for firms looking to gain a banking licence.
- Financial Innovation Partnership (UK – US) which seeks to encourage collaboration in the private sector, to enable sharing of expertise in regulatory practices, and to promote growth and innovation.
- Financial Services and Markets Bill (FSMB) which seeks to increase coordination between the regulators over new technology, data, and changes in finance as the sector is impacted by cryptocurrencies, stablecoins, NFTs, tokenization, and blockchain/distributed ledger technology (DLT).

<sup>1</sup> Ron Kalifa OBE, 2021. The Kalifa Review of UK FinTech.

<sup>2</sup> EY, 2020. UK FinTech: Moving mountains and moving mainstream.

<sup>3</sup> IBIS World, 2023. Financial Technology in the UK.

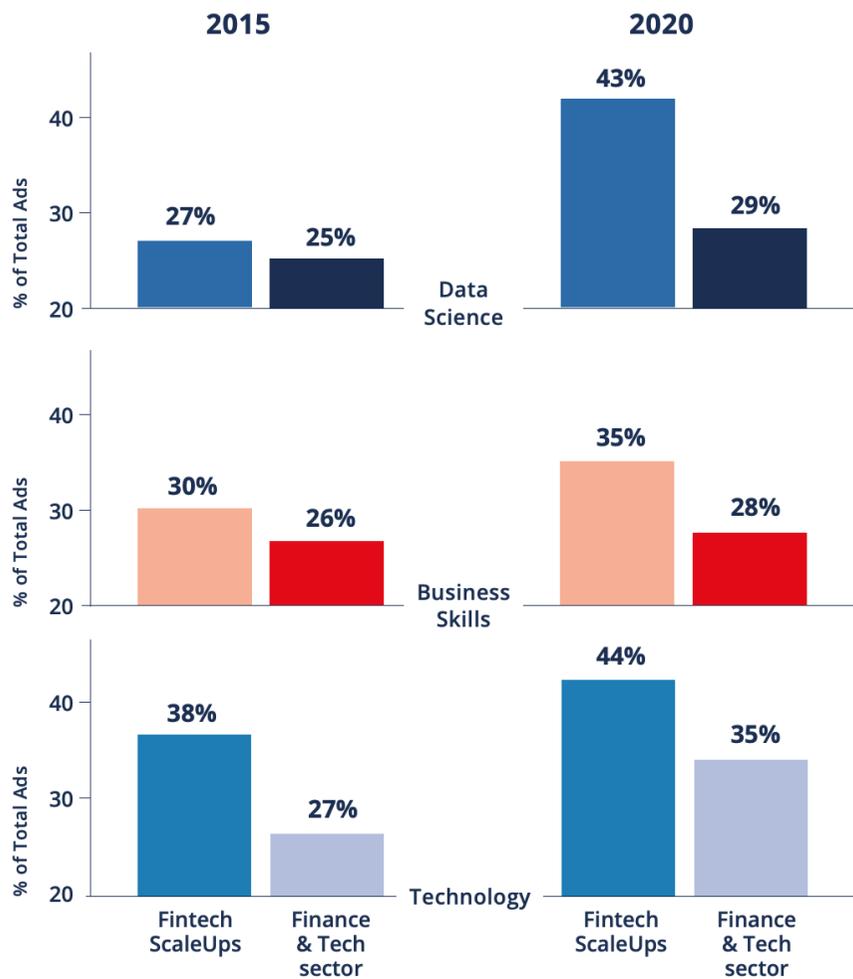


Image source: 2021, The Kalifa Review of UK FinTech

Although the economic outlook appears to be extremely positive for UK FinTech, there is a risk that the skills deficit will affect these projections as access to qualified talent and skills continues to be one of the biggest challenges for the UK FinTech sector.

According to The Kalifa Review, although there are some common talent needs across Financial Services, tech and FinTech, there a number of unique requirements in terms of skills which differentiates FinTech from FS and tech.

*“Not only do they require technology and data specialists, but in order to support successful and sustainable growth, scaling fintechs are also looking for experienced managers and Financial Services specific knowledge”.*

**Ron Kalifa OBE<sup>4</sup>.**

When looking at the skills requirements across UK FinTech job adverts, 43% were seeking data skills, 44% were seeking technology skills and 35% were seeking generic business skills, similar to the skills requirements found across the West Midlands FinTech sector.

<sup>4</sup> Ron Kalifa OBE, 2021. The Kalifa Review of UK FinTech.

# West Midlands FinTech Sector

The 2020 West Midlands FinTech Ecosystem Report<sup>5</sup>, commissioned by the Greater Birmingham & Solihull Local Enterprise Partnership (GBSLEP) and published by Whitecap Consulting, found there to be a significant opportunity for the region with regards to FinTech.

The research found the FinTech sector to contribute c.£410m to the region's economy, employing c.7,300 people, with an estimated 24 FinTech startups and scaleups. The report also highlights significant potential for Fintech startups and scaleups as the region has a Financial Services and tech economy that could sustain around 100 FinTech startups and scaleups.

Recent analysis<sup>6</sup> shows FinTech GVA across the region is now estimated to be c.£470m, a CAGR of 5% from 2020 to 2023. FinTech GVA per Worker across the West Midlands is c.£43,000, almost double the average GVA per Worker at c.£23,000. These stats demonstrate why FinTech is now considered to be a key industrial sector for the region, showing significant growth, contributing large amounts to the economy and providing high-value, high-earning jobs.

Developments can also be seen across the FinTech ecosystem, specifically the tech sector, with the opening of a new tech hub by Goldman Sachs, creating hundreds of high-value tech jobs across the region, requiring skills for roles such as cloud engineers, Java developers, security engineers and risk and internal audit roles.

When looking at the number of FinTech startups and scaleups across the region, we have seen a 171% increase since 2020, with the number of known firms now sitting at 65 (from 24 in 2020). Additionally, the FinTech workforce across the region has seen a 51% increase since 2020, now employing over 11,000 people.



<sup>5</sup> Whitecap Consulting, 2020. West Midlands FinTech Ecosystem Report 2020.  
<sup>6</sup> Whitecap Consulting Methodology. See Methodology Section in Appendix.

# UK Financial Services Skills

## FSSC Future Skills Framework

**According to the Financial Services Skills Commission (FSSC)<sup>7</sup>, the financial services sector employs over 1m people, contributing c.£174bn to the UK economy, making up 8% of UK Gross Domestic Product (GDP).**

However, UK Financial Services firms are experiencing acute skills shortages and the lack of talent is restricting the digital transformation of the sector. According to the FSSC Future Skills Report (2022)<sup>8</sup>, among firms that have not yet pursued digital transformation, 42% say it is due to difficulties sourcing relevant talent. As well as this, Financial Services firms are competing with tech firms, FinTech firms and other industries in the same limited talent pool, making the need for a long-term skills intervention more prevalent.

The two biggest factors found to be driving future skills requirements across Financial Services are technology (24%) and changing customer behaviour (22%), with technology being key to changing consumer behaviour as it allows more choice in searching for the best products as well as the fastest transaction and processing times.

The FSSC research highlights the need for the Financial Services sector to invest in future skills, "future skills are those most crucial to future business success and firms need to make sure they are equipped for the future." The report also highlights the benefits of investing in reskilling existing employees compared to acquiring skills through recruitment, revealing that firms can generate cost savings of up to c.£49k per worker through opting to reskill employees over recruiting external hires.

Through its research, the FSSC has identified five key future skills clusters across Financial Services which sit within two broad buckets: technical and behavioural. While technical skills will be increasingly essential to future roles within Financial Services, they are not sufficient on their own. Talent that can demonstrate behaviours such as creative thinking, adaptability and relationship management will also be vital to the future competitiveness of Financial Services.



<sup>7</sup> Financial Services Skills Commission, 2022. Future Skills Framework.

<sup>8</sup> Financial Services Skills Commission, 2022. Mind the gaps – Skills for the future of Financial Services 2022.

## Five Future Skills Clusters identified by FSSC:

These five skills clusters form the basis of the FSSC Future Skills Framework which suggests that they are essential to “creating a dynamic, flexible, and innovative Financial Services sector which can meet the needs of its diverse global customers.”

Within the framework, the skills clusters are broken down into 13 required skills, outlining the key elements that make up the skill as well as proficiency levels which demonstrate how a person can develop and advance their capability in each skill over time.

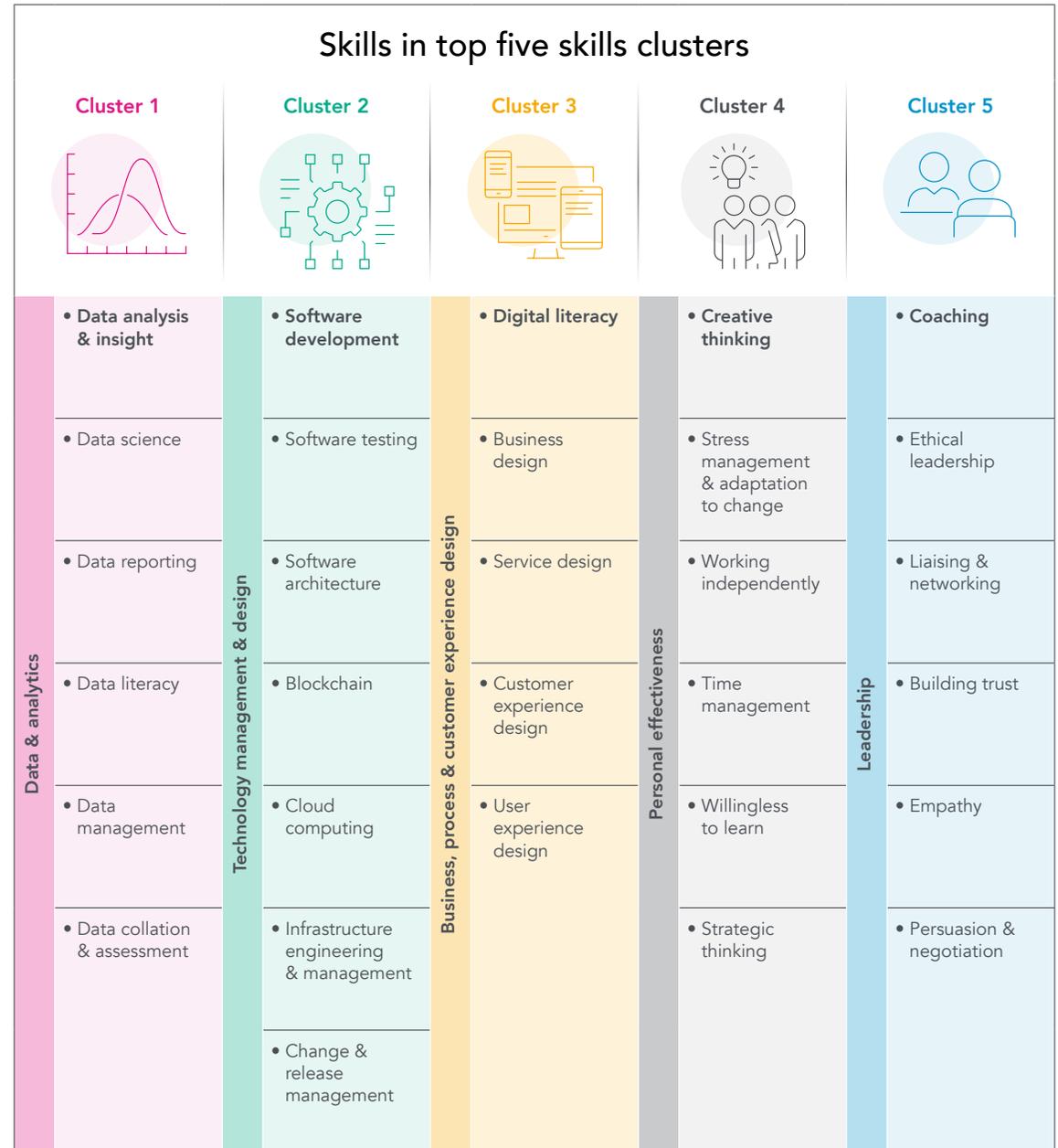
## FSSC Future Skills Framework: 13 Skills Requirements

### Technical:

-  Digital Literacy
-  Data Analytics and Insight
-  Software Development
-  User Experience
-  Machine Learning / AI
-  Agile
-  Cyber Security

### Behaviour:

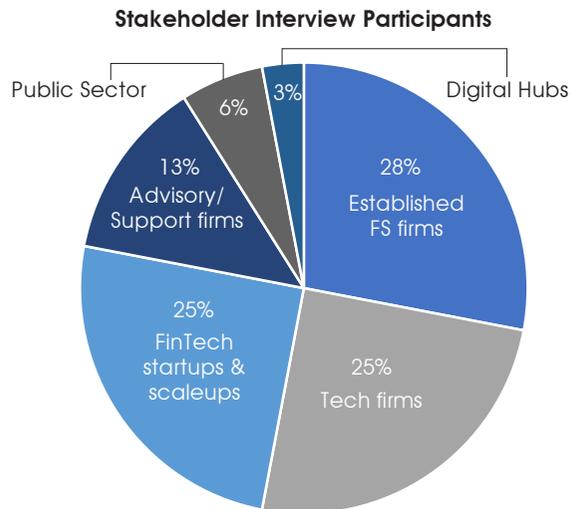
-  Creative Thinking
-  Coaching
-  Empathy
-  Adaptability
-  Relationship Management
-  Teamwork



# Stakeholder Insight – Regional FinTech Ecosystem

To identify the key skills and qualifications required to support the future growth of the West Midlands FinTech sector, the research involved undertaking a number of stakeholder interviews with decision makers from across the region's FinTech ecosystem.

The interviews have provided rich, qualitative insight into the current and anticipated skills requirements across the FinTech ecosystem, helping to inform what skills provision will be necessary to support the future growth and competitiveness of the sector.



The interviews also helped to understand the current perception that industry has of further education, revealing a significant lack of awareness regarding the FE offer and skills provision that FE colleges provide.

For example, a number of firms interviewed were not aware that FE supplies in-work training and adult courses to reskill employees and of those that were aware, many held the belief that these courses would be expensive and would not meet the appropriate proficiency level required by the employer.

However, despite a lack of awareness, throughout the interviews, employers were extremely receptive to the idea of in-work training provision with many viewing it as a potential way to retain talent.

Although a number of established firms have setup their own skills bootcamps to train and upskill employees, FinTech startups and scaleups often do not have the resource to dedicate to training and so have to rely on on-the-job training or online courses provided through resources such as LinkedIn or Microsoft.

Insight from the interviews also helped to further understand the type of skills provision that employers require across the FinTech sector, with a number of firms expressing a desire for 'modular', 'stackable' courses that are flexible in delivery and provide advanced technical skills that allow employees to progress in their career.

"I don't think we know how to approach colleges or Further Education. We have the perception that FE would be too greenfield for us as we ideally need recruits with some experience." – Business Development Director, FinTech Startup/Scaleup.

"We would be interested in finding out more about what Further Education has to offer but at the moment we're just not aware of what they do." – Head of People & Talent, FinTech Startup/Scaleup.

"If we could find training courses offered locally then we would opt for those over online courses but I'm not aware of any providers that offer what we need." – CTO, FinTech Startup/Scaleup.

"The main barrier for us with training is cost, anything over £1000 has to be approved. We'd be very much interested in finding out more, but we would have to consider the cost." – Co-Founder, FinTech Startup/Scaleup.

"One of the best ways to increase talent retention in your business is to invest in people's development so we'd definitely be interested in doing more in this space if there are opportunities that we're not taking advantage of." – Managing Director, FinTech Startup/Scaleup.

"Engaging with Further Education would be very valuable; we'd definitely be interested in finding out more." – Founder & CEO, FinTech Startup/Scaleup.

"We would be very interested to talk to Further Education colleges about what they offer." – Head of Delivery, Tech.

"We're really interested in people with some life and business experience as these people tend to have transferable skills and they can easily be trained. That's where Further Education could really play a role." – Founder, Tech.

"We'd like to do more upskilling to increase retention but there isn't a lot out there right now in terms of courses that are short and sharp courses which is what we'd need." – IT Director, Established FS.

"Micro courses that run for 4-weeks or so would definitely be of interest to us." – Co-Founder, FinTech Startup/Scaleup.

# FINTECH SKILLS REQUIREMENTS



# FinTech Skills Requirements

Through the market insight and stakeholder interviews, four key skills requirements for the current and future growth and competitiveness of the West Midlands FinTech sector have been identified and outlined below:

## 1 Requirement 1: Core Financial Services Knowledge



- Understanding of the sector dynamics and terminology.
- An awareness of the UK financial services regulation and compliance with the understanding that it's a complex environment and so specialist knowledge is not required at entry level.

## 2 Requirement 2: Generic Business Skills



- Presentation skills (particularly how to present data)
- Professionalism
- Communication skills (both internal and external)
- Relationship management (both internal and external)
- Ability to communicate and articulate technical elements of the business in a way that's easily translatable
- Sales skills
- Consulting skills
- Project management skills or qualification

## 3 Requirement 3: Technical Skills



- Data analytics/ engineers
- Software developers/ architect
- Coders (low-code and java)
- Designers (digital designers, UX, service designers)
- Specialists – cloud, cybersecurity, Microsoft
- Distributed ledger and cryptocurrency
- Cisco Network qualification
- Solution architect
- Business analyst

## 4 Requirement 4: Behavioural Attributes



- Confident
- Resilient
- Proactive
- Motivated
- Self-driven
- Empathetic
- Entrepreneurial
- Adaptable
- Resourceful

# RECOMMENDED SKILLS PROVISION FRAMEWORK



# Recommended Skills Provision Framework

This Skills Provision Framework has been devised by Whitecap, designed on and informed by a number of key inputs through this report, including detailed market research into the UK and West Midlands FinTech markets; research conducted by the FSSC and the Future Skills Framework and a series of stakeholder interviews conducted with decision makers across the WM FinTech ecosystem.

The aim of the framework is to distinguish the different skills needs and requirements across the ecosystem including for established firms as well as startups and scaleups.

The framework considers three key course designs that deliver skills at varying proficiency levels:

1. Entry level courses for school leavers.
2. Upskilling and reskilling adult courses for people with some experience and transferable skills.
3. In-work training for people already in a FinTech role which deliver advanced skills.

It is important to note that the proficiency/ training levels referenced within the Skills Provision Framework are not aligned to the UK education suite of qualifications. Rather, they are aligned to the proficiency levels cited in the FSSC Future Skills Framework.

Established Financial Services	Training Level		
	ENTRY LEVEL	UPSKILLING / RESKILLING	IN-WORK TRAINING
<ul style="list-style-type: none"> <li>• More resource availability than FinTech startups &amp; scaleups to train new recruits when they arrive.</li> <li>• Often have their own bootcamps and academies that they put new recruits through to get them "up to speed".</li> </ul>	<p><b>Proficiency Level 1-2</b></p> <ul style="list-style-type: none"> <li>• School leavers with full-time availability to study.</li> <li>• Assuming no or very little prior work experience and FS knowledge.</li> </ul>	<p><b>Proficiency Level 3-4</b></p> <ul style="list-style-type: none"> <li>• Upskilling and reskilling people that already have some work experience in other sectors as well as transferable skills.</li> <li>• Bootcamps/ academy style offering (which typically run 12-16 weeks at levels 3-5 training. Aligned to levels 3-4 of FSSC framework).</li> </ul>	<p><b>Proficiency Level 3-5</b></p> <ul style="list-style-type: none"> <li>• For people already working within the sector so assuming an already good level of experience and knowledge of the sector.</li> <li>• For employees that want to advance in their role or become 'specialist'.</li> <li>• For employers that want to invest in their people and retain their talent.</li> <li>• Employees in FS firms are likely to have more time and budget to invest in training and self-development and so may be willing to spend more on a course, may need less flexibility and be able to attend training in-person.</li> </ul>

FinTech Startups & Scaleups	Training Level		
	ENTRY LEVEL	UPSKILLING / RESKILLING	IN-WORK TRAINING
<ul style="list-style-type: none"> <li>• Less resource availability than established FS firms and so desire a basic level of FS knowledge and understanding from new recruits.</li> <li>• Also require higher-level of technical skills from entry-level compared to FS.</li> <li>• Often hire from bootcamps and very open to hiring people from different backgrounds.</li> </ul>	<p><b>Proficiency Level 1-2</b></p> <ul style="list-style-type: none"> <li>• School leavers with full-time availability to study.</li> <li>• Due to resource constraint, expect a basic knowledge of FS sector and technical capability.</li> <li>• Expect basic level in required behavioural skills such as communication, presentation, professionalism etc.</li> </ul>	<p><b>Proficiency Level 3-4</b></p> <ul style="list-style-type: none"> <li>• Upskilling and reskilling people that already have some work experience in other sectors as well as transferable skills.</li> <li>• Bootcamps/ academy style offering (which typically run 12-16 weeks at levels 3-5 training. Aligned to levels 3-4 of FSSC framework).</li> <li>• FinTech startups appear to frequently hire from bootcamps and have a high opinion of the talent they produce in terms of the level they are trained to.</li> </ul>	<p><b>Proficiency Level 3-5</b></p> <ul style="list-style-type: none"> <li>• For people already working within the sector so assuming an already good level of experience and knowledge of the sector.</li> <li>• For employees that want to advance in their role or become 'specialist'.</li> <li>• For employers that want to invest in their people and retain their talent.</li> <li>• FinTech startup and scaleup employees are likely to have a smaller budget for training and less time to invest, needing more flexibility and may require shorter-courses to be delivered virtually.</li> </ul>

*"Birmingham has long been a major financial services centre. Along with associated business and professional services, the sector is the engine room of the regional economy. Birmingham is also one of three Government-recognised FinTech hubs in the UK. We're strongly committed to supporting this cluster in enabling technology-led evolution, fostering innovation and developing an ecosystem to unlock talent and growth.*

*Our Global City campaign promotes the UK as the world's most global financial centre. It's not just about London, because it's the strengths in financial services and FinTech across the country that makes the UK such a compelling proposition. The launch of this FinTech Skills report further evidences the value and contribution of Birmingham and the West Midlands to supercharging the next generation of services."*

**Damian Nussbaum, Executive Director Innovation and Growth, City of London Corporation**



# Skills Provision Framework:

## Entry Level Courses for Established Firms

### Established Financial Services - Upskilling / Reskilling



#### Technical / Knowledge Requirements

- Core FS knowledge including sector dynamics and terminology.
- Awareness of regulation and compliance.
- Basic proficiency in Microsoft tools.

#### Level 1-2 FSSC technical skills:

- Basic data analysis & insight skills.
- Digital literacy including use of digital tools and techniques.
- SFIA level 2 software development (basic knowledge).



#### Behavioural Requirements

- Communication skills both to internal and external stakeholders.
- Professionalism/ awareness of how to act in a workplace.
- Presentation skills/ confidence.
- Time management/ basic project management.
- Teamwork/ willingness to contribute.
- Proactive attitude.
- Empathy.
- Creative thinking.
- Relationship management.



#### FE Skills Intervention

- Course that provides a core understanding of FS, its dynamics, terminology and regulation.
- Courses that acknowledge the behaviour requirements of employers across the sector and incorporates projects that will nurture these attributes.
- Courses that meet the requirements of the FSSC skills at a proficiency level 1-2.

#### FSSC Skills Level 1-2:

- Digital Tools - awareness of digital tools to deliver work and collaborate with customers and colleagues, learning about new technology trends and develops own digital skills.
- Data Analytics - aware of data tools and insights to inform decisions. Ethically and responsibly uses and manages data.
- Software Development - At the start of their software development career and working on well-defined tasks and are supported with their activity by more senior members of the team.

# Skills Provision Framework:

## Upskilling and Reskilling for Established Firms

### Established Financial Services - Upskilling / Reskilling



#### Technical / Knowledge Requirements

- Core FS knowledge including sector dynamics and terminology
- Awareness of regulation and compliance
- Proficiency in Microsoft tools

#### Level 3-4 FSSC technical skills

- Data analysis & insight skills
- Digital literacy including use of digital tools & techniques
- SFIA level 3-5 software development



#### Behavioural Requirements

- Ability to use and apply experience and transferable skills to FinTech sector
- Communication skills both to internal and external stakeholders
- Creative thinking - generates innovative ideas and continuously improve existing ways of working
- Adaptability
- Empathy
- Relationship management
- Teamwork



#### FE Skills Intervention

- Bootcamp/academy style (12-16 weeks) which aim to reskill/upskill already experienced members of the community and teaches them how to transfer their skills to the sector

#### FSSC Skills Level 3-4

- Digital tools - identifies emerging technology and promotes and supports the learning and development of digital skills
- Data Analytics - confidently uses advanced tools to achieve outcomes and visualise data
- Software Development - independently capable, can lead on the design and implementation of a feature or project

# Skills Provision Framework: In-Work Training for Established Firms

## Established Financial Services - In-work Training



### Technical / Knowledge Requirements

- Dependant on the role/ function within the business
- Regulation/ compliance specialist.
- Specialist in FS vertical (wealth management, tax, pensions, mortgages etc.)
- Advanced proficiency in Microsoft tools.
- Advanced project management skills.

#### Level 3-5 FSSC technical skills:

- Level 5 digital literacy skills.
- Level 5 data analytics skills.
- SFIA level 4-5 software development.
- Level 3+ user design skills.
- Level 3+ machine learning skills.
- Level 3+ agile management skills.
- Level 3+ cybersecurity skills.



### Behavioural Requirements

- Advanced creative thinking skills.
- Coaching/ mentoring and leadership skills.
- Self-awareness, empathy and high levels of emotional intelligence.
- Proficient communicators and presenters.
- Extremely adaptable.
- Excellent relationship management with variety of stakeholders.
- Active team player and encourages/ supports others.



### FE Skills Intervention

- Modular/ stackable courses that are offered virtually/ flexibly that provide more advanced knowledge and specialisms, assuming an already core understanding of the FS sector.

#### FSSC Skills Level 3-5:

- Digital Tools - supports others through their expert knowledge about digital tools and technology.
- Data Analytics - Enables the use of a range of analytical tools to support the critical evaluation and effective reporting of data.
- Software Development - an experienced contributor who leads in either team or domain area.
- User Experience - designs research methods and approaches, triangulating multiple data points to influence direction.
- Machine Learning - Develops and utilises new algorithms and ML models and deploying it to production. Designs advanced statistical and computation models.
- Agile - Sets up projects using Agile methodologies, facilitating ceremonies and upskilling others where needed.
- Cybersecurity - Designs security testing plan, and performs advanced, authorised penetration testing.

# Skills Provision Framework:

## Entry Level Courses for Startups and Scaleups

### Startups & Scaleups - Entry Level Training



#### Technical / Knowledge Requirements

- Core FS knowledge including sector dynamics and terminology.
- Awareness of regulation and compliance.
- Basic proficiency in Microsoft tools.
- Basic coding skills.
- Basic cloud skills.

#### Level 1-2 FSSC technical skills:

- Data analysis & insight.
- Digital literacy.
- SFIA level 3 software development (basic knowledge).
- User experience.
- Machine learning.
- Cybersecurity skills.
- Agile techniques.



#### Behavioural Requirements

- Communication skills both to internal and external stakeholders.
- Ability to articulate complex tech in a clear and digestible way.
- Professionalism/ awareness of how to act in a workplace.
- Presentation skills/ confidence.
- Time management/ basic project management.
- Teamwork/ willingness to contribute.
- Proactive/ self motivated and drive to learn and develop.
- Creative thinking.
- Relationship management and basic sales skills.
- Resilience and resourcefulness.
- Adaptability.



#### FE Skills Intervention

- Course that provides a core understanding of FS, its dynamics, terminology and regulation.
- Courses that not only acknowledge but that focus on the behaviour requirements of FinTech startups and fully integrate them into projects.
- Courses that meet the requirements of the FSSC skills at a proficiency level 1-2.

#### FSSC Skills Level 1-2:

- Digital Tools - Applies a wide range of digital tools and technology.
- Data Analytics - Recognises trends and patterns in data, evaluating this when making decisions.
- Software Development - Able to work more independently and as part of a development team.
- User Experience - Leads on data gathering and ideation and evaluates own and others' designs.
- Machine Learning - Understands fundamental concepts in machine learning to assist in deploying ML models.
- Agile - Uses Agile tools and ceremonies to deliver work to a high standard.
- Cybersecurity- Understands the types of system exploits, cyber security protocols and frameworks.

# Skills Provision Framework:

## Upskilling and Reskilling for Startups and Scaleups

### Startups & Scaleups - Upskilling / Reskilling



#### Technical / Knowledge Requirements

- Core FS knowledge including sector dynamics and terminology.
- Awareness of regulation and compliance.
- Proficiency in Microsoft tools.
- Level 2+ coding skills.
- Level 2+ cloud skills,

#### Level 3-4 FSSC technical skills:

- Data analysis & insight skills.
- Digital literacy including use of digital tools and techniques.
- SFIA level 3-5 software development.
- Level 2+ User experience.
- Machine learning.
- Cybersecurity skills.
- Agile techniques.



#### Behavioural Requirements

- Communication skills both to internal and external stakeholders.
- Ability to articulate complex tech in a clear and digestible way.
- Teamwork/ willingness to contribute.
- Proactive/ self motivated and drive to learn and develop.
- Creative thinking.
- Relationship management and basic sales skills.
- Resilience and resourcefulness.
- Adaptability.



#### FE Skills Intervention

- Bootcamp/ academy style (12-16 weeks) which aims to reskill/ upskill already experienced members of the community and teaches them how to transfer their skills to the sector.

#### FSSC Skills Level 3-4:

- Digital Tools - Identifies and supports others to use and get value out of digital tools.
- Data Analytics - Confidently uses advanced tools to achieve outcomes and visualise data.
- Software Development - Independently capable, and can lead on the design and implementation of a feature or project.
- User Experience - Leads on data gathering and ideation and evaluates own and others' designs.
- Machine Learning - Develops and utilises new algorithms and ML models and deploying it to production.
- Agile - Identifies which Agile tools to use and when they are best applied.
- Cybersecurity- Conducts authorised penetration testing of systems and to expose threats, vulnerabilities, and potential attack vector system.

# Skills Provision Framework: In-Work Training for Startups and Scaleups

## Startups & Scaleups - In-work training



### Technical / Knowledge Requirements

- Dependant on the role/ function within the business:
- Regulation/ compliance specialist.
- Specialist in FS vertical (wealth management, tax, pensions, mortgages etc.)
- Advanced proficiency in Microsoft tools.
- Advanced project management skills.
- Advanced coding skills.
- Cloud specialist.

#### Level 3-5 FSSC technical skills:

- Level 5 digital literacy skills.
- Level 5 data analytics skills.
- SFIA level 4-5 software development.
- Level 3+ user design skills.
- Level 3+ machine learning skills.
- Level 3+ agile management skills.
- Level 3+ cybersecurity skills.



### Behavioural Requirements

- Entrepreneurialism.
- Advanced creative thinking skills.
- Advanced coaching/ mentoring and leadership skills.
- Self-awareness, empathy and high levels of emotional intelligence.
- Proficient communicators and presenters.
- Extremely adaptable.
- Excellent relationship management with variety of stakeholders.
- Active team player and encourages/ supports others.
- Resourceful and resilient in challenging situations.



### FE Skills Intervention

- Modular/ stackable courses that are offered virtually/ flexibly that provide more advanced knowledge and specialisms, assuming an already core understanding of the FS sector.

#### FSSC Skills Level 3-5:

- Digital Tools - supports others through their expert knowledge about digital tools and technology.
- Data Analytics - Enables the use of a range of analytical tools to support the critical evaluation and effective reporting of data.
- Software Development - an experienced contributor who leads in either team or domain area.
- User Experience - designs research methods and approaches, triangulating multiple data points to influence direction.
- Machine Learning - Develops and utilises new algorithms and ML models and deploying it to production. Designs advanced statistical and computation models.
- Agile - Sets up projects using Agile methodologies, facilitating ceremonies and upskilling others where needed.
- Cybersecurity - Designs security testing plan, and performs advanced, authorised penetration testing.

# REFLECTIONS & NEXT STEPS



# Reflections & Next Steps

The findings presented in this report make clear the opportunity and need for the FE sector to develop a FinTech skills provision offering and in doing so, FE would play a valuable role in supporting the continued rapid growth and future competitiveness of the West Midlands FinTech sector.

Whilst the case for doing so is compelling and the level of detail that has ensued from the employer engagement undertaken in this research has gone beyond initial expectations, there is still work to be done to bring the vision to reality. Next steps that need to be considered include the following:

## Course Design

Based on the findings from the market and stakeholder insight, when considering the design and development of skills provision for the West Midlands FinTech sector, there are three possible course designs to consider:

1. Entry-Level Courses
2. Upskilling/ Reskilling
3. In-Work Training

Course designs are likely to deliver varying proficiency levels in training and skills, starting from the most basic proficiency levels for entry level courses and progressing to more advanced proficiency levels through upskill/ reskilling and in-work training courses.

## Course Prioritisation

The stakeholder interviewees revealed a clear demand for a foundation knowledge of financial services including industry dynamics, terminology and a basic awareness of UK financial services regulation.

We also heard from a number of interviews that entry-level recruits are often not 'work ready' and lack the generic business skills and behavioural attributes that employers across the FinTech sector desire.

These factors should be considered and prioritised within course design, noting the tailoring required according to the level of proficiencies, as referred to above.

## Funding

Funding in the FE landscape is complex, particularly when considering new course creation. There are greater flexibilities within the adult provision compared to that for 16-18 learners. Furthermore, with the devolution of some Adult Education Budget to regional bodies, in this case the West Midlands Combined Authority, there are more flexibilities that might be leveraged for the provision of employment-oriented courses directly linked to the growth of key sectors. Private/ self-funding should also not be discounted as the opportunity of the comparatively high-value jobs would help support such investment into skills training on a company or individual basis.

The funding model should be developed in tandem with the course design elements in order to ensure a viable, sustainable provision materialises to meet industry needs for the medium-long term.

## Industry Engagement

As a final point, how to maintain industry engagement is a key consideration for all of the elements above, but also in the context that Fintech is a rapidly evolving sector and much like all tech-based sectors, content and capabilities move far quicker than the education sector. Due consideration should be given as to how to continue the engagement to date and develop a responsive delivery model.

## Greater Birmingham Professional Services Academy (GBPSA)

**Based at BMet's Matthew Boulton College, Birmingham is home to the only Professional Services Academy in the UK, the Greater Birmingham Professional Services Academy (GBPSA). The Professional Services Academy specialises in developing the skills and knowledge to work in the business professional and services sector, working in partnership with employers to deliver an industry specific skills development programme.**

At the academy, there are over 200 full-time courses for school leavers including A Levels and vocational qualifications, full-time Access to Higher Education courses, part-time adult professional development, Entry-Level and recreational courses as well as full and part-time degree level study.

As BMet already has the GBPSA Advisory Board in place, the college will further build on this existing asset by evolving the GBPSA offer to better suit the needs of future generations and employers, and rather than creating a separate Advisory Board for FinTech, part of the GBPSA evolution could be an extension into FinTech by inviting FinTech firms to sit on the board. This will ensure that going forward, FinTech is a key part of the discussion regarding the broader Professional Services proposition across the region and its next phase of growth.

## Case Study – LegalTech in Leeds Advisory Board

LegalTech in Leeds is an initiative which aims to bring together the legal and tech sectors across Leeds City Region, in order to:

- Accelerate digital transformation across the legal sector
- Improve access to legal services
- Drive and enable innovation

A key part of the initiative is the LegalTech in Leeds Advisory Board which involves key stakeholders and decision makers from across the region, many of which are representatives from the sponsor and partner organisations who support the initiative.

The Advisory Board meet once a month for an hour with the option of attending virtually or in-person to discuss the progress and key developments of the initiative. The Advisory Board shares thoughts and offers guidance about the future direction and activity of LegalTech in Leeds and play a key role in ensuring the initiative acts in accordance with its guiding values and principles.



# Appendix - Methodology

## FinTech definition and categories

FinTech can be defined as the application of technology to improve financial products and services. This makes it a very broad category, making it extremely challenging to categorise companies and jobs, especially in the absence of standard measures such as SIC codes.

In this report we have differentiated between three different types of companies directly operating within the FinTech sector:

**FinTech startups and scaleups** - Pure FinTech business models, often with a focus on disrupting the sectors they work in.

**Established Financial/FinTech organisations** - Established entities, offering financial products or services via tech-enabled processes.

**Tech firms** - Businesses operating in multiple markets (must include serving financial services or FinTech).

## Estimated FinTech workforce

Categorising jobs within FinTech is additionally challenging, as not everyone working in established financial services or tech sectors is working in FinTech.

We have conducted primary research, which involves a manual count of employees in each startup and scaleup in the region to establish the number of jobs within FinTech startups and scaleups and have adopted a proxy methodology to estimate the number of jobs within the established Financial/FinTech organisations to calculate the overall number of jobs in the overall FinTech sector within the three categories listed above.

To calculate the FinTech workforce we have adopted the following methodology:

Total FinTech Workforce = 5% of combined tech workforce (data from Tech Nation) and financial services workforce (data from ONS) + FinTech startup and scaleup workforce (data from Whitecap primary research)

We use SIC 62 to as a proxy to estimate the West Midlands proportion of the overall Tech Nation tech workforce figure. Tech Nation uses a wider range of SIC codes to calculate the overall tech workforce, including those that are part of 26, 58, 61, 63 and 95, and by default all of these categories are also included in our workforce estimates.

## Estimated Regional FinTech GVA

Estimated FinTech workforce x Regional GVA per worker.

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This project is supported by SuperTech WM, an industry led cluster set up to drive collaboration and innovation across the West Midlands professional services tech cluster. Greater Birmingham and Solihull LEP is the body accountable for and the one of the primary funders of SuperTech.

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